Amendments to the Specification:

Please amend the specification as follows:

Page 5, lines 5-12, replace with the following paragraph:

The GDLs 4 are formed of a carbon cloth or a carbon paper that has undergone a water repellency treatment, and are attached to the inner sides of frames 4B. The GDLs 4 are firmly attached to the solid polymer electrolyte membrane 3 so as to cover the catalyst layers 13 by a fixing effect obtained by an electrolyte solution or by a partial thermal adhesion by a thermosetting adhesive. In the following description, the GDL 4 covering the anode will be referred to as anode side ~~GDL~~ GDL4, and the GLD 4 covering the cathode will be referred to as the cathode side GLD 4.

Page 6, line 24 through page 7, line 8, replace with the following paragraph:

The intermediate separator supply unit 21 is equipped with a cassette 21A storing intermediate separators 6. The cassette 21A is carried into the case 25 via a slide rail through an opening formed in the rear surface of the case 25 as shown in FIG. 2. A grip 21B for carrying-in and carrying-out is mounted to the cassette 21A. The cassette 21A has at its bottom a bearer 21D upwardly urged by a spring 21C. The intermediate separators 6 are superimposed one upon the other on the bearer ~~21~~ 21D, and the uppermost intermediate separator is in contact with a stopper 21E mounted to the upper portion of the cassette 21A. The intermediate separator supply unit 21 is equipped with a send-out roller 21F for sending out the uppermost intermediate separator 6. The cassette 21A has an opening for sending out from the cassette 21A the uppermost intermediate separator 6 as the send-out roller 21F rotates.

Page 7, lines 19-27, replace with the following paragraph:

The intermediate separator supply unit 21 is equipped with a pair of laser oscillators ~~35~~ 35A facing the photosensitive drums 31A. The laser oscillators ~~35~~ 35A perform scanning in the directions of the rotation axes of the photosensitive drums ~~31~~ 31A with laser beams passed through optical lenses. When, as scanning is performed with the laser beams, the

photosensitive drums ~~31~~ 31A are rotated, the charge on the surface of the photosensitive drums 31A that have undergone scanning is lost. Further, through flashing control of the laser beams, it is possible to form charge-less portions in an arbitrary pattern on the surfaces of the photosensitive drums 31A.

Page 8, lines 26 to page 9, line 14, replace with the following paragraphs:

The MEA supply unit 23 is situated directly below the intermediate separator supply unit 21. The MEA supply unit 23 is equipped with a cassette 23A storing MEAs 2. The cassette 23A is of substantially the same construction as the cassette 21A, and is equipped with a grip 23B, a spring 23C, a bearer 23D, a stopper 23E, and a send-out roller 23F. The cassette ~~23B~~ 23A is further equipped with a humidifier 26. The humidifier 26 vaporizes water supplied from a water intake port 26A provided in the rear surface of the case 25 shown in FIG. 2, and supplies steam to the MEA 2 situated at the uppermost position in the cassette ~~23B~~ 23A, placing the MEA 2 in a desirable moistened state.

The MEA supply unit 23 sends the MEA 2 humidified by the humidifier 26 to the exterior of the cassette ~~23B~~ 23A by the send-out roller 23F. The MEA supply unit 23 has, in front of the cassette ~~23B~~ 23A, a pair of other send-out rollers 27, and a conveying belt 28 wrapped around one send-out roller 27. The MEA 2 conveyed by the send-out rollers 27 and the conveying belt 28 is send out to the stack forming unit 24 through a gap between discharge rollers 37A and 37B installed in the opening of the case 25 facing the stack forming unit 24.

Page 10, lines 4-9, replace with the following paragraph:

The end separator 5A or 5B conveyed by the conveying belt 36B is sent out to the stack forming unit 24 through a gap between a pair of discharge rollers 37B installed in the opening of the case 25 facing the stack forming unit 24. In the following description, the intermediate separator 6, the MEA 2, and the end separators 5A and ~~6B~~ 5B sent out from the opening of the case 25 will be generally referred to as the stack materials.

Page 11, lines 23-27 to page 12, line 5, replace with the following paragraph:

Next, with reference to FIGS. 5 through 8, a fuel cell stack production process by the fuel cell stack producing apparatus will be described. Prior to the production process, intermediate separators 6, MEAs 2, and end separators 5A and 5B are previously stored in the cassettes 21A through 23A, and the charging rollers 30A, 30B, ~~31A, and 31B~~ 32A and 32B, and thermosetting adhesive powder are previously charged positively or negatively. In the stack forming unit 24, the ascent/descent table 41 and the press head 43B are both held at the raised position. The seal members 14 are previously fitted into the seal grooves 15 of the respective stack materials. In the MEA supply unit ~~22~~ 23, the MEA 2 is appropriately humidified by the humidifiers 26.

Page 13, lines 9-16, replace with the following paragraph:

Referring to FIG. 6, the fuel cell stack producing apparatus then operates the MEA supply unit 23, and operates the send-out roller 23F to send the uppermost MEA 2 in the cassette ~~23B~~ 23A to the exterior of the cassette ~~23B~~ 23A. Further, the pair of send-out rollers 27 and the conveying belt 28 are operated to send out the MEA 2 to a position above the end separator 5B in the guide box 40 through the gap between the discharge rollers 37A and 37B installed in the opening of the case 25. At this time, the positioning protrusion 40A abuts the leading edge of the MEA 2 to effect positioning on the MEA 2.

Page 13, line 22 to page 14, line 6, replace with the following paragraph:

Referring to FIG. 7, the fuel cell stack producing apparatus then operates the intermediate separator supply unit 21, and operates the send-out roller 21F to send out the uppermost intermediate separator 6 in the cassette ~~21B~~ 21A to the position between the pair of charging rollers 30A, positively charging the surface of the intermediate separator 6 by the charging roller 30A. On the other hand, at the photosensitive drums 31A, thermosetting adhesive powder is caused to adhere to the surfaces of the drums in a given pattern by the charging rollers 32A, the laser emitters 35A, and the powder rollers 33A. As shown in FIG. 4, both the upper surface and the lower surface of the intermediate separator 6 are bonded to MEAs 2. Thus, both the upper surface and the lower surface of the intermediate separator 6

are positively charged, and thermosetting adhesive powder is caused to adhere to both of the pair of photosensitive drums 31A.

Page 17, lines 2-6, replace with the following paragraph:

Instead of storing in the cassette 23A an MEA 2 in which a solid polymer electrolyte membrane 3 and a ~~GLD 4~~ GDL 4 are integrated beforehand, it is also possible to individually supply these components to the guide box 40 from different cassettes, integrating them through thermal compression at the stack forming unit 24.

Page 17, line 20 to page 18, line 9, replace with the following paragraphs:

The fuel cell producing apparatus is equipped with a pair of sub assembly lines 101A and 101B for integrating separators 120 and GDLs 121 into separator/GDL assemblies 102, an electrolyte membrane supply unit ~~104~~ 105 for supplying an electrolyte membrane 104 between the pair of separator/GDL assemblies 102, and an integration unit 103 for holding the electrolyte membrane 104 between the pair of separator/GDL assemblies 102 and integrating them with each other.

One of the ~~sub lines~~ sub assembly lines 101A and 101B assembles the anode side separator/GDL assembly 102 of a fuel cell, and the other sub line assembles the cathode side separator/GDL assembly 102 of the fuel cell.

The ~~sub lines~~ sub assembly lines 101A and 101B are respectively equipped with separator conveyors 118. By performing processing on the separators 120 conveyed by the separator conveyors 118 at GDL bonding stages 116 and seal incorporating stages 117, the separator/GDL assemblies 102 are produced. Further, the separator conveyors 118 convey the completed separator/GDL assemblies 102 to the integration unit 103. Separators 120 are supplied to the separator conveyors 118 at fixed intervals.

Page 18, line 25 to page 19, line 6, replace with the following paragraph:

The ~~sub lines~~ sub assembly lines 101A and 101B are respectively equipped with jigs 122 at the GDL bonding stages 116 and the seal incorporating stages 117. The jigs 122 of the GDL bonding stages 116 grasp the GDLs 121, and bond the GDLs 121 to the separators 120 being conveyed by the separator conveyors 118. Adhesive is applied in advance to the

surfaces of the separators 120 to be bonded to the GDLs 121, and, as a result of this operation, the separators 120 and the GDLs 121 are integrated. On the other hand, the surfaces of the GDLs 121 facing the jigs 122 are coated in advance through application, etc. with an electrolyte containing a catalyst constituting the anodes or cathodes.

Page 19, lines 11-13, replace with the following paragraph:

The separator conveyors 118 convey a pair of separator/GDL assemblies 102, thus assembled in the ~~sub-lines~~ sub assembly lines 101A and 101B, to the integration unit 103 in a state in which they face each other.

Page 20, lines 13-22, replace with the following paragraph:

The separation nozzle 108 ejects a removal airflow toward the interface between the electrolyte membrane 105 and the protective film 106 sent out from the roll ~~7~~ 107 by the rotation of the servo motor and the airflows of the conveying nozzles 109A, and separates the protective film 106 from the electrolyte membrane 105. To facilitate intrusion of the protective film removal airflow into the interface between the electrolyte membrane 105 and the protective film 106, the forward end of the separation nozzle 108 is set so as to be directed toward the curved portion of the roll ~~7~~ 107. Preferably, proper humidity control is also performed on the protective film removal airflow to supply a high quality electrolyte membrane 105 to the integration unit 103.

Page 21, lines 1-11, replace with the following paragraph:

In the above-described construction, the electrolyte membrane supply unit 104 gradually feeds the electrolyte membrane 105 from the roll ~~7~~ 107 toward the integration unit 103. During the operation of the integration unit 103, the electrolyte membrane supply unit 104 does not feed the electrolyte membrane 105. Thus, the feeding of the electrolyte membrane 105 is effected intermittently in conformity with the operation of the integration unit 103. Also regarding the pair of separator conveyors 118, the conveyance of the separators 120 is not performed during the operations of the GDL bonding stages 116, the seal incorporating stages 117, and the integration unit 103. In view of this, the operations of

the GDL bonding stages 116, the seal incorporating stages 117, and the integration unit 103 are performed in synchronism with each other.

Page 22, lines 2-25, replace with the following paragraphs:

In this fuel cell producing apparatus, a pair of separator/GDL assemblies 102 are produced synchronously in the ~~sub-lines~~ sub assembly lines 101A and 101B, and are conveyed synchronously to the integration unit 103 by the separator conveyors 118. The feeding of the electrolyte membrane 105 by the electrolyte membrane supply unit 104 is effected in synchronism with the conveyance of the separator/GDL assemblies 102 by the separator conveyors 118. Thus, the electrolyte membrane supply unit 104 alternately repeats the feeding of the electrolyte membrane 105 for one span and the standby during the processing at the GDL bonding stages 116, the seal incorporating stages 117, and the integration unit 103.

The electrolyte membrane supply unit 104 on standby stops the servo motor driving the roll ~~7~~ 107, and retains the electrolyte membrane 105, with its leading edge slightly protruding toward the integration unit 103 from between the rectifying plates ~~9B~~ 109B, by the conveyance airflows blown out of the conveying nozzles ~~9A~~ 109A. When feeding the electrolyte membrane 105, the roll ~~7~~ 107 is rotated by the servomotor. Then, the electrolyte membrane 105 is fed to the integration unit 103 while maintaining a given tension due to the conveying nozzles ~~9A~~ 109A and the suction device 110. Preferably, the electrolyte membrane 105 is not fed for one span at one time, but is intermittently fed between the separator/GDL assemblies 102. The electrolyte membrane 105 fed between the separator/GDL assemblies 102 is maintained in a non-contact state with respect to the separator/GDL assemblies 102 on both sides by the conveyance airflows blown out of the conveying nozzles ~~9A~~ 109A until the jig press-fits the separator/GDL assemblies 102.